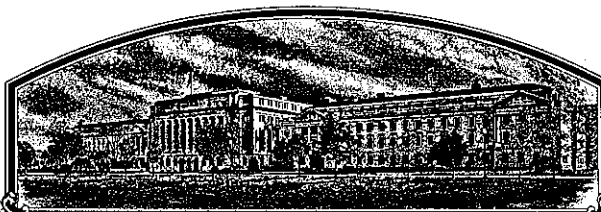


No.

8800231



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Western Plant Breeders, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS SEEDS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS PROVIDED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT

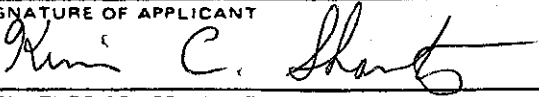
'Baker'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D. C. this 31st day of August in the year of our Lord one thousand nine hundred and eighty-nine.

Attest

Kenneth A. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Clayton Fentler
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE		APPROVAL EXPIRES 4-30-88 FORM APPROVED, OMB NO. 0581-0055	
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions on reverse)			
1. NAME OF APPLICANT(S) WESTERN PLANT BREEDERS, INC.		2. TEMPORARY DESIGNATION PH983-69	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 8111 TIMBERLINE DRIVE BOZEMAN, MT. 59715		5. PHONE (Include area code) (406) 587-1218	
6. GENUS AND SPECIES NAME TRITICUM AESTIVUM		7. FAMILY NAME (Botanical) GRAMINEAE	
8. KIND NAME WHEAT		9. DATE OF DETERMINATION JANUARY 17, 1986	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) CORPORATION		11. IF INCORPORATED, GIVE STATE OF INCORPORATION MARYLAND	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS KIM C. SHANTZ 227 SO. SMITH RD. SUITE # 104 TEMPE, AZ. 85281		12. DATE OF INCORPORATION Sept. 27, 1985	
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED		15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.)	
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.) b. <input checked="" type="checkbox"/> Exhibit B. Novelty Statement. c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety (Request form from Plant Variety Protection Office.) d. <input type="checkbox"/> Exhibit D. Additional Description of Variety. e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of Applicant's Ownership.		<input checked="" type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input type="checkbox"/> No	
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?		17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified	
18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?		19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?	
<input type="checkbox"/> Yes (If "Yes," give date!) <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Yes (If "Yes," give names of countries and dates!) <input type="checkbox"/> No	
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT 		DATE August 26, 1988	
SIGNATURE OF APPLICANT		DATE	

- 14A. BAKER is a Spring Wheat selected from a male-sterile facilitated recurrent selection population designated Hi Pro-80. Hi Pro-80 was initiated by Western Plant Breeders in 1980 by intercrossing an F₂ high protein population developed by the University of Arizona with an F₂ high protein population developed by Western Plant Breeders. Eleven high protein lines (CI 17692-17702) from Montana State University were the sources for the high protein population developed by Western Plant Breeders. A total of 200 crosses were made between the two populations, transferring pollen from fertile plants in one population to male-sterile plants in the other population. The bulked F₁ was grown at Conrad, Montana in the summer of 1980. From the F₂ grown at Phoenix, Arizona in 1981, selected heads were bulked and the resulting F₃ was grown at Phoenix, Arizona in the winter of 1982. Plant selections made from this bulk were planted as F₄ plots at Phoenix, Arizona in 1983. One plot designated as PH 983-69 was harvested in bulk and yield tested in Arizona and California in 1984, 1985, 1986 and 1987. Forty eight heads were selected from the F₆ bulk at Phoenix in May of 1985 and grown as head rows at Bozeman, Montana in the summer of 1985. Eighteen of the head rows were harvested and seed from each of the eighteen were planted as individual plots at Phoenix, Arizona in the fall of 1985. Twelve non-segregating plots that appeared to have identical phenotypes were harvested and the seed was bulked to produce breeders seed. This seed was used to plant twelve acres of foundation seed production at Bozeman, Montana, in May of 1986. A variant that is similar to Baker but is four to six inches taller occurs at a frequency of two per pound. A red chaff variant occurs at a frequency of one per three pounds. No other identifiable variants have been found during the multiplication process. Baker is a stable and uniform cultivar in agronomic appearance and performance across several generations and growing conditions. Agronomic data to support stability is presented in the tables.
- ~~14B. BAKER is a day length insensitive, hard red spring wheat with an average height of 29.4 inches which is .6 inches shorter than Yecora Rojo and 7 inches shorter than Yolo. Baker most resembles Yecora Rojo, but matures 2 days earlier. Baker has a distinctly more yellow head color than does Yecora Rojo and Baker has smoother awns than Yecora Rojo. The anthocyanin content of the auricles is visually more pronounced in Baker than in Yecora Rojo. The quality of Baker is similar to Yecora Rojo but differs in that Baker has slightly lower mixing tolerance index and slightly longer stability and departure time. The loaf volume of Yecora Rojo is slightly higher than the loaf volume of Baker. The above comparisons along with the objective description (13C) show Baker to be a novel variety of spring wheat.~~
- 14E. Western Plant Breeders, Inc. is the employer of the breeder, Kim C. Shantz, and rightfully, therefore, the owner of "BAKER".

ES
4/13/89

8800231

(Revised June 12, 1989, Wheat Application # 8800231, 'Baker')

14B. BAKER is a day length insensitive, hard red spring wheat with an average height of 29.4 inches which is .6 inches shorter than Yecora Rojo and 7 inches shorter than Yolo. Baker most resembles Yecora Rojo. Baker differs from Yecora Rojo in that it has square glume shoulders while Yecora Rojo has elevated glume shoulders. Baker has a distinctly more yellow head color than does Yecora Rojo and Baker has smoother awns than Yecora Rojo. The anthocyanin content of the auricles is visually more pronounced in Baker than in Yecora Rojo. The quality Baker is similar to Yecora Rojo but differs in that Baker has slightly lower mixing tolerance index and slightly longer stability and departure time. The loaf volume of Yecora Rojo is slightly higher than the loaf volume of Baker. The above comparisons along with the objective description (13C) show Baker to be a novel variety of spring wheat.

U. S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN AND SEED DIVISION
BELTSVILLE, MARYLAND 20785
OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (TRITICUM SPP.)

EXHIBIT C
(Wheat)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S) Western Plant Breeders, Inc.		FOR OFFICIAL USE ONLY	
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 8111 TIMBERLINE DRIVE BOZEMAN, MT. 59715		PVPO NUMBER 8800231	VARIETY NAME OR TEMPORARY DESIGNATION Baker

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. or) when number is either 99 or less or 9 or less.

1. KIND:

<input type="text" value="1"/>	1 = COMMON	2 = DURUM	3 = EMMER	4 = SPELT	5 = POLISH	6 = POULARD	7 = CLUB
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2. TYPE:

<input type="text" value="1"/>	1 = SPRING	2 = WINTER	3 = OTHER (Specify) _____	<input type="text" value="2"/>	1 = SOFT	3 = OTHER (Specify) _____
					2 = HARD	
<input type="text" value="2"/>	1 = WHITE	2 = RED	3 = OTHER (Specify) _____			

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

<input type="text" value="1"/> <input type="text" value="0"/> <input type="text" value="6"/>	FIRST FLOWERING	<input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="3"/>	LAST FLOWERING
--	-----------------	--	----------------

4. MATURITY (50% Flowering):

<input type="text" value="0"/> <input type="text" value="2"/>	NO. OF DAYS EARLIER THAN	<input type="text" value="7"/>	1 = ARTHUR	2 = SCOUT	3 = CHRIS
<input type="text" value=""/> <input type="text" value=""/>	NO. OF DAYS LATER THAN None	<input type="text" value=""/>	4 = LEMHI	5 = NUGAINES	6 = LEEDS
			7. Yecora Rojo		

5. PLANT HEIGHT (From soil level to top of head):

<input type="text" value=""/> <input type="text" value="7"/> <input type="text" value="5"/>	CM. HIGH				
<input type="text" value=""/> <input type="text" value=""/>	CM. TALLER THAN none	<input type="text" value=""/>	7. Yecora Rojo		
<input type="text" value="0"/> <input type="text" value="1"/>	CM. SHORTER THAN	<input type="text" value="7"/>	1 = ARTHUR	2 = SCOUT	3 = CHRIS
			4 = LEMHI	5 = NUGAINES	6 = LEEDS

6. PLANT COLOR AT BOOTING (See reverse):

<input type="text" value="1"/>	1 = YELLOW GREEN	2 = GREEN	3 = BLUE GREEN
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7. ANTHUR COLOR:

<input type="text" value="1"/>	1 = YELLOW	2 = PURPLE
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8. STEM:

<input type="text" value="1"/>	Anthocyanin: 1 = ABSENT	2 = PRESENT	<input type="text" value="2"/>	Waxy bloom: 1 = ABSENT	2 = PRESENT
<input type="text" value="2"/>	Hairiness of last internode of rachis: 1 = ABSENT	2 = PRESENT	<input type="text" value="1"/>	Internodes: 1 = HOLLOW	2 = SOLID
<input type="text" value=""/> <input type="text" value="4"/>	NO. OF NODES (Originating from node above ground)	<input type="text" value="1"/> <input type="text" value="5"/>	CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW		

9. AURICLES:

<input type="text" value="2"/>	Anthocyanin: 1 = ABSENT	2 = PRESENT	<input type="text" value="2"/>	Hairiness: 1 = ABSENT	2 = PRESENT
--------------------------------	-------------------------	-------------	--------------------------------	-----------------------	-------------

10. LEAF:

<input type="text" value="2"/>	Flag leaf at booting stage: 1 = ERECT	2 = RECURVED	<input type="text" value="2"/>	Flag leaf: 1 = NOT TWISTED	2 = TWISTED
	3 = OTHER (Specify): _____				
<input type="text" value="2"/>	Hairs of first leaf sheath: 1 = ABSENT	2 = PRESENT	<input type="text" value="2"/>	Waxy bloom of flag leaf sheath: 1 = ABSENT	2 = PRESENT
<input type="text" value="1"/> <input type="text" value="9"/>	MM. LEAF WIDTH (First leaf below flag leaf)	<input type="text" value="2"/> <input type="text" value="8"/>	CM. LEAF LENGTH (First leaf below flag leaf):		

11. HEAD:

☐ Density: 1 = LAX 2 = DENSE

☐ Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE
4 = OTHER (Specify) _____

☐ Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

☐ Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED
5 = BROWN 6 = BLACK 7 = OTHER (Specify): _____

☐ ☐ CM. LENGTH ☐ ☐ MM. WIDTH

12. GLUMES AT MATURITY:

☐ Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)
3 = LONG (CA. 9 mm.)

☐ Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)
3 = WIDE (CA. 4 mm.)

☐ Shoulder: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED
shape: 4 = SQUARE 5 = ELEVATED 6 = APICULATE

☐ Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

☐ 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

☐ 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

☐ 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

☐ Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

☐ Cheek: 1 = ROUNDED 2 = ANGULAR

☐ Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

☐ Brush: 1 = NOT COLLARED 2 = COLLARED

☐ Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN
4 = BROWN 5 = BLACK

☐ Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____

☐ ☐ MM. LENGTH ☐ ☐ MM. WIDTH ☐ ☐ GM. PER 1000 SEEDS

17. SEED CREASE:

☐ Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'
2 = 80% OR LESS OF KERNEL 'CHRIS'
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

☐ Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'
2 = 35% OR LESS OF KERNEL 'CHRIS'
3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ STEM RUST (Races) ☐ LEAF RUST (Races) ☐ STRIPE RUST (Races) ☐ LOOSE SMUT

☐ POWDERY MILDEW ☐ BUNT ☐ OTHER (Specify) _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ SAWFLY ☐ APHID (Bydv.) ☐ GREEN BUG ☐ CEREAL LEAF BEETLE

☐ OTHER (Specify) _____ HESSIAN FLY RACES: ☐ GP ☐ A ☐ B ☐ C
☐ D ☐ E ☐ F ☐ G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Yecora Rojo	Seed size	Yecora Rojo
Leaf size	Yecora Rojo	Seed shape	Yecora Rojo
Leaf color	Yecora Rojo	Coleoptile elongation	Yecora Rojo
Leaf carriage	Yecora Rojo	Seedling pigmentation	Yecora Rojo

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.
- (b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

TABLE 1

Yield in pounds/acre of Baker and presently grown varieties
in Western Plant Breeders' trials in California and Arizona.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
Phoenix, AZ.	1984	6583	6933	7683	8263
	1985	6867	6450	6683	8517
	1986	5903	5243	6563	6600
	1987	6075	6300	6500	6600
El Centro, CA.	1984	7260	6958	6738	8250
	1985	5508	5535	4874	6332
	1986	5531	5513	6038	--
	1987	6943	6477	6268	--
Yuma, AZ.	1984	7288	6490	6380	6710
Casa Grande, AZ.	1985	4579	4730	4703	5170
Maricopa, AZ.	1986	3290	3745	3325	3500
Yuma, AZ.	1987	6790	5740	5880	--
Fresno, CA.	1984	6815	6641	4698	5365
	1985	6732	5868	6462	6768
	1986	4930	4756	4911	4756
	1987	6080	5848	5713	5944
Cocoran, CA.	1985	7201	6703	7363	8756
	1987	6460	6520	5240	4880
Davis, CA.	1985	4878	4986	5814	6714
	1986	3204	2987	4335	4712
	1987	6502	6464	6180	6993
Artois, CA.	1987	6397	6449	6960	6449
Average		5992	5788	5878	6383

TABLE II.

Percent protein of Baker and presently grown varieties in Western Plant Breeders' trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
Phoenix, AZ.	1984	12.8	12.9	12.3	10.9
	1985	14.5	14.3	14.0	12.8
	1986	15.9	15.8	14.9	13.9
	1987	14.4	14.5	14.2	13.1
El Centro, CA.	1984	13.6	13.3	12.7	11.3
	1985	15.3	15.4	14.0	13.3
	1986	15.7	16.0	14.3	--
Yuma, AZ.	1984	14.3	13.5	14.1	13.0
Casa Grande, AZ.	1985	14.7	14.6	13.7	12.5
Maricopa, AZ.	1986	15.8	15.6	15.4	13.5
Fresno, CA.	1984	14.6	14.1	13.0	12.5
	1985	14.9	14.8	15.3	14.0
	1986	13.7	13.9	12.5	11.0
Cocoran, CA.	1985	15.3	15.2	14.3	12.8
Davis, CA.	1985	13.2	13.0	12.1	11.3
	1986	13.0	13.0	12.2	11.2
	1987	13.8	13.2	13.1	12.5
Artois, CA.	1987	14.7	14.4	13.9	13.2
Average		14.5	14.3	13.7	13.0

TABLE III.

Plant height in inches of Baker and presently grown varieties in Western Plant Breeders' trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
Phoenix, AZ.	1984	28	29	31	34
	1985	32	34	34	38
	1986	30	31	32	36
	1987	--	--	--	--
El Centro, CA.	1984	28	29	31	36
	1985	32	32	31	37
Yuma, AZ.	1984	27	27	28	36
Casa Grande, AZ.	1985	31	30	27	36
Maricopa, AZ.	1986	24	24	24	30
Cocoran, CA.	1985	32	34	30	38
Davis, CA.	1985	30	30	33	36
AVERAGE		29.4	30.0	30.1	35.7

TABLE IV.

Flowering date of Baker and presently grown varieties in Western Plant Breeders' trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
Phoenix, AZ.	1984	3-15	3-14	3-25	3-18
	1985	3-21	3-19	4-01	3-23
	1986	3-8	3-7	3-25	3-11
	1987	3-17	3-14	4-2	3-19
Casa Grande, AZ.	1985	4-10	4-10	4-18	4-16

TABLE V.

Days to maturity after March 1 of Baker , Yecora Rojo and Yolo in the University of California Regional Trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>Yolo</u>
Davis, CA.	1986	74	76	84

TABLE VI.

Test weight in pounds/bu. of Baker and presently grown varieties in Western Plant Breeders' trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
Phoenix, AZ.	1984	64.6	64.4	62.8	64.0
	1985	63.6	63.7	61.6	63.0
	1986	64.8	64.8	63.4	65.4
	1987	63.6	62.8	61.3	62.1
El Centro, CA.	1984	62.5	62.3	61.1	62.8
	1985	62.2	61.9	61.2	62.4
	1986	64.4	64.4	62.9	--
	1987	65.1	64.8	64.2	--
Yuma, AZ.	1984	64.0	63.5	62.3	63.5
Casa Grande, AZ.	1985	63.7	62.9	61.2	62.4
Maricopa, AZ.	1986	64.2	64.6	63.1	64.0
Yuma, AZ.	1987	64.2	63.5	61.9	--
Fresno, CA.	1984	61.2	61.9	55.4	57.1
	1985	62.3	61.9	62.3	63.2
	1986	63.7	63.3	61.8	63.0
Cocoran, CA.	1985	63.7	63.2	63.0	64.2
	1987				
Davis, CA.	1985	64.2	64.4	61.3	62.9
	1986	64.4	64.5	64.1	64.1
	1987	65.8	66.0	65.0	65.7
AVERAGE		63.8	63.6	62.1	63.0

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TABLE VII.

Percent lodging of Baker and presently grown varieties in Western Plant Breeders' trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
Phoenix, AZ.	1985	5	30	40	10
Fresno, CA.	1985	15	25	--	10

TABLE VIII.

Sedimentation values in millimeters of Baker and presently grown varieties in Western Plant Breeders' trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
Phoenix, AZ.	1986	50	55	47	30
Davis, CA.	1986	61	60	54	49
Maricopa, AZ.	1986	58	56	54	48
El Centro, CA.	1986	55	53	49	--

TABLE IX.

Percent shatter of Baker and presently grown varieties in Western Plant Breeders' trials.

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>
El Centro, CA.	1985	5	3	9	5

//

TABLE X.

Disease ratings of Baker and presently grown varieties in Western Plant Breeders' trials.

Septoria

<u>Location</u>	<u>Year</u>	<u>Baker</u>	<u>Yecora Rojo</u>	<u>WestBred 911</u>	<u>Yolo</u>	
Davis, CA.	1985	4	4	3	2	
	1986	7	7	3.5	3	
			<u>Stripe</u>	<u>Rust</u>		SUSC CK WRP 9-5
Fresno, CA.	1984	0	T	0	0	6
Cocoran, CA.	1984	0	T	0	0	8
			<u>Leaf</u>	<u>Rust</u>		SUSC CK PH982-88
Fresno, CA.	1984	0	0	0	0	4
Cocoran, CA.	1984	0	3	3	5	9

* 0 = no disease found

9 = dying plants

TABLE XI.

Quality of Baker and Yecora Rojo
varieties in Western Plant Breeders' trials.

	PHOENIX 1985		1986		CASA GRANDE 1985		EL CENTRO 1986	
	<u>BAKER</u>	<u>YECORA ROJO</u>	<u>BAKER</u>	<u>YECORA ROJO</u>	<u>BAKER</u>	<u>YECORA ROJO</u>	<u>BAKER</u>	<u>YECORA ROJO</u>
Protein	14.2	14.4	12.5	12.7	14.1	14.2	15.6	15.0
Test Weight	65.0	64.0	64.5	65.5	65.0	65.0	64.5	64.5
Milling Value	32.7	30.9	32.3	33.4	31.9	29.3	31.3	33.5
Ash	.401	.43	.409	.403	.412	.412	.419	.400
Flour Absorption	63.7	63.0	64.3	63.7	64.7	62.5	63.3	63.4
Peak Time	9.5	6.5	9.0	8.0	15.5	11.5	7.5	8.0
Stability	25.0	* 18.5	25.0	23.0	25 +	25 +	13.0	11.0
Bake Absorption	64.0	63.5	65.3	65.7	64.7	62.5	65.3	65.4
Loaf Volume (3HR)	3225	3400	3075	2950	3150	3275	3225	3450
Loaf Volume (4HR)	3250	3325	2800	2900	3150	3050	3300	3300
Grain	Good	Good	Good	Good	Slightly Open	Good	Good	Good
Over All Rating	Good -	Good -	Fair	Fair +	Fair +	Good -	Good	Good

* Quality analysis were performed by Bay State Milling.

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TABLE XII.

Quality of Baker and Yecora Rojo
varieties in Western Plant Breeders' trials.

	PHOENIX		EL CENTRO	
	1986		1986	
	<u>BAKER</u>	<u>YECORA ROJO</u>	<u>BAKER</u>	<u>YECORA ROJO</u>
Test Weight	65.6	65.3	64.7	64.3
Protein	12.1	12.0	14.5	14.5
Extraction	69.7	70.8	71.1	70.2
Ash	.43	.44	.40	.39
Flour Absorption	65.3	63.2	64.5	63.7
Arrival Time	1.5	1.0	3.5	3.5
Peak Time	6.5	4.5	7.5	7.5
Departure	12.0	7.5	14.0	13.0
MTI	30	50	30	40
Loaf Volume	2850	2825	2625	2800
Bake Score	81	82	73	80

* Quality analysis were performed by Con Agra Flour Milling Company.

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